

# MIRECC/CESATE Clinical Effectiveness Research

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**Improving Smoking Quit Rates for Veterans with PTSD:**

**Integrating Smoking Cessation Treatment  
into Mental Health Care**

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# Tobacco Use is Linked to PTSD

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- High prevalence of smoking in veterans with PTSD
    - » (PTSD = 53% - 66% vs. 30% VA enrollees vs. 23% society)
  - PTSD increases risk for smoking four-fold (OR = 4.03)
  - More veterans with PTSD are heavy smokers, compared to veterans without PTSD (48% vs. 28%)
  - Smoking quit rates for PTSD are half the quit rates of smokers without mental disorder (23% vs. 50%)
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# Integrated Care versus the Usual Standard of Care for Smoking Cessation in PTSD

A Randomized Clinical Trial

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# Primary Objective

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To compare the effectiveness of brief Integrated Care (IC) versus VA's Usual Standard of Care (USC) for nicotine dependence in veterans undergoing mental health treatment for PTSD.

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# Study Design and Eligibility Criteria

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- Design:
    - » Two-group randomized, controlled effectiveness trial comparing IC (n = 33) versus USC (n = 33)
  - Participants:
    - » Inclusions: PTSD Program outpatients who smoked > 10 cigarettes per day
    - » Exclusions: unstable psychosis or BPD, untreated substance dependence, smokeless tobacco
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## Subject Characteristics- Demographics

53 Years Old	87% War Zone Trauma Exposed
82% Male	83% Unemployed
86% White	83% Receiving VA Disability
50% Married	59% Disability for PTSD (Median: 100%)

# Integrated Care: Components of Brief Clinical Intervention

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- Behavioral Counseling (the PHS “5 A’s”)
    - » Six weekly sessions (20 minutes each) plus discretionary follow-up visits.
  - Pharmacotherapy
  - Self-help readings
  - Relapse prevention/recovery and maintenance
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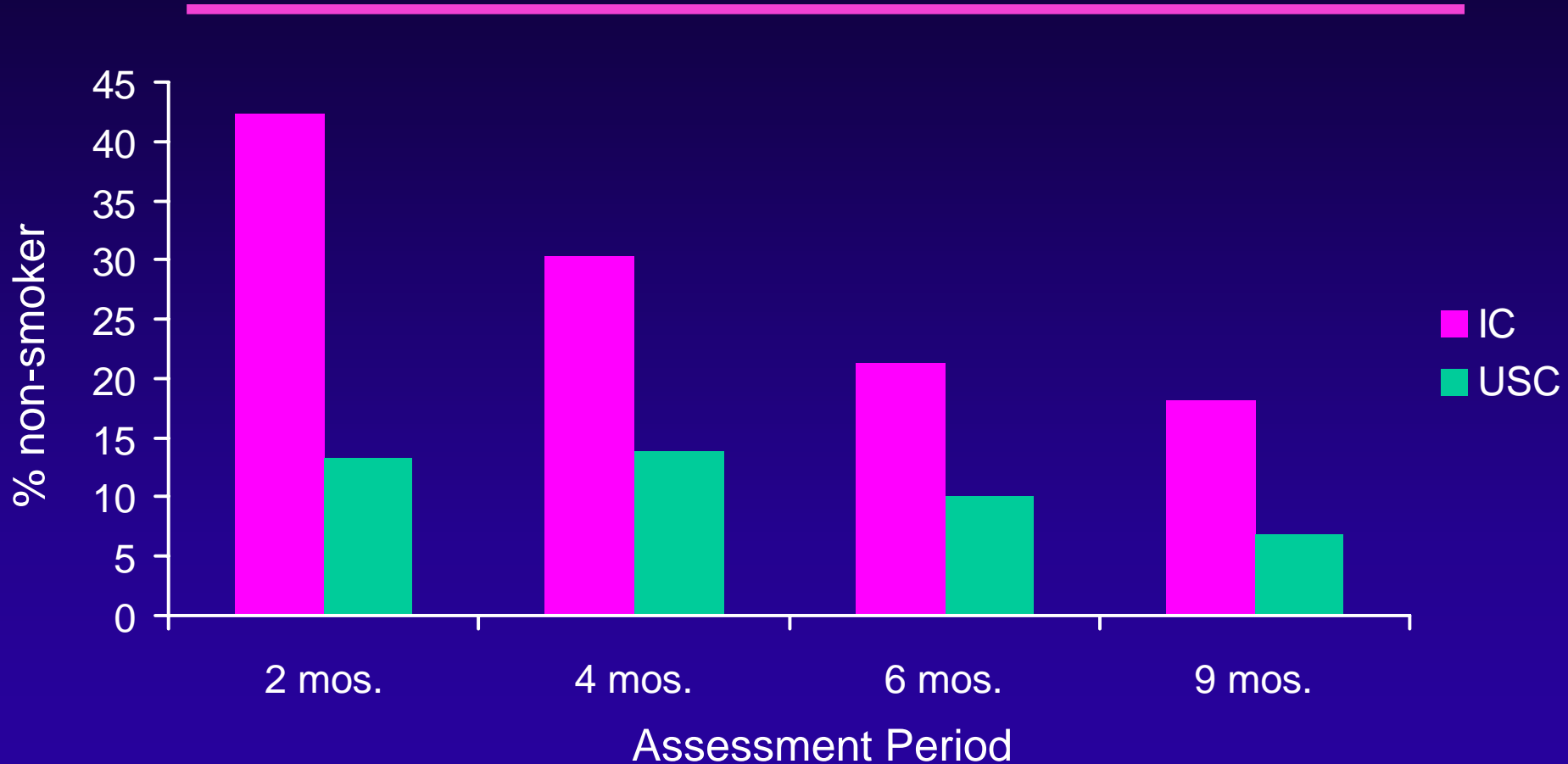
# Integrated Care: Clinic Implementation and Monitoring Strategy

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- Initial training and ongoing supervision
  - Manualized procedures
  - Charting template
  - Case review and team-based problem solving for relapsers, rolled into weekly staff meeting
  - Provider feedback of smoking status
  - Regular team feedback about project outcomes
  - “Clinical champion” to promote the project
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## Clinical Outcomes: 7-Day Point Prevalence for Non-Smoking Status (n=66)



GEE Analysis Results: Odds Ratio = 5.23,  $p < .0014$

# Clinical Outcomes

## *Process Variables*

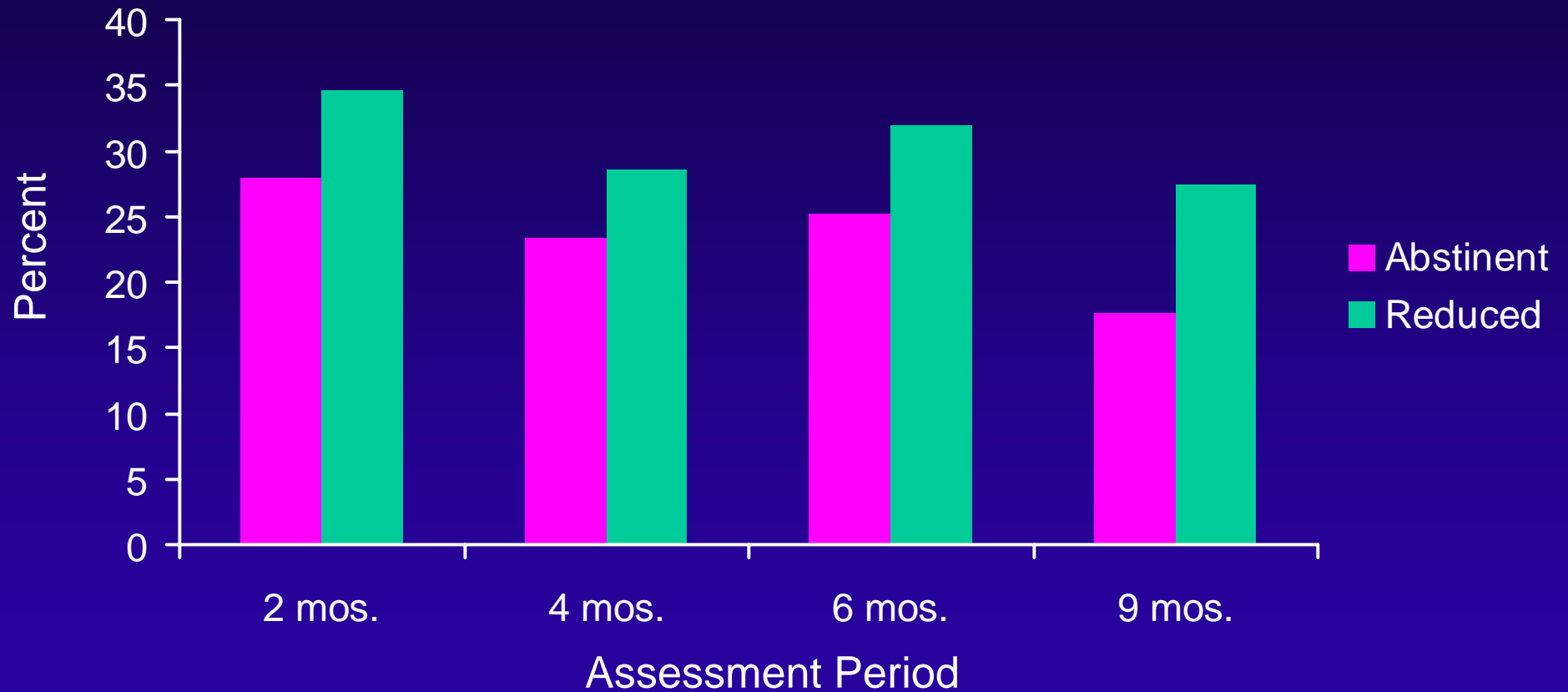
<b><i>Variable</i></b>	<b><i>IC</i></b>	<b><i>USC</i></b>
Bupropion SR	61%	48%
<b>Transdermal Nicotine*</b>	94%	67%
<b>Nicotine Gum*</b>	88%	42%
<b>Treatment Sessions*</b>	5.2	2.6
Quit Attempts	4.29	3.25
<b>Satisfaction with Amount of Treatment*</b>	3.9 (1-5 scale)	3.5
<b>Satisfaction with Quality of Treatment*</b>	3.7 (1-5 scale)	3.4

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# Practice-Based IC for Smoking Cessation: An Open Clinical Trial

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## 7-Day Point Prevalence Abstinence and Percent Reduction for Continued Smokers (n = 107)



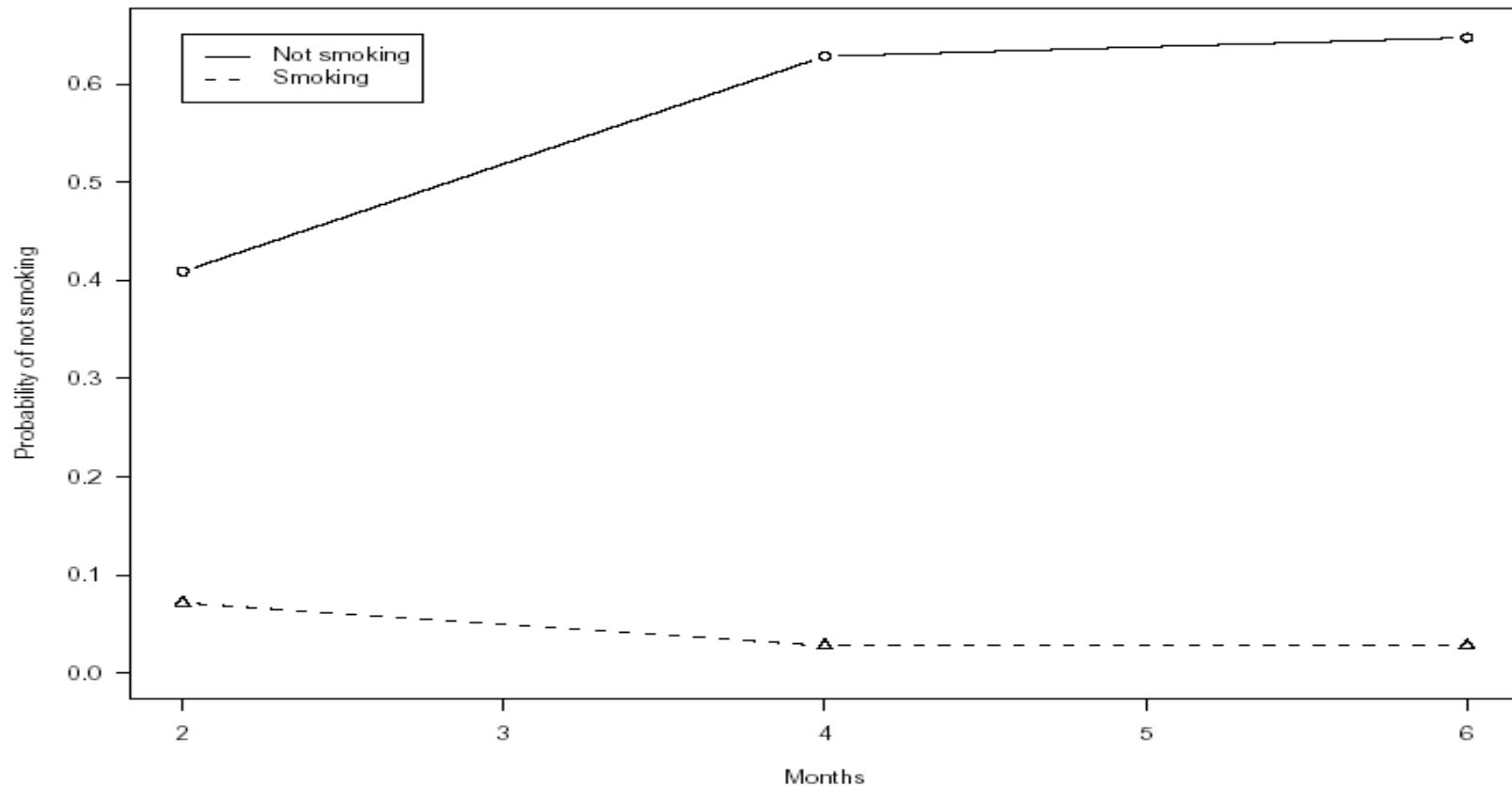
## Repeated Point Prevalence Abstinence (Months 4, 6, and 9) for Both Studies

Condition	Randomized Trial (n = 66)	Open Trial (n = 107)
Integrated Care	15.2%	15.0%
Standard Care	3.3%	

## Prediction of Prolonged Abstinence (n=140)

- **Greater number of treatment sessions**  
(6 vs. 3 [OR=3.59, 95% CI=1.49, 8.62])
- **Pre-treatment episode of abstinence > 6 months**  
(OR=5.44 [95% CI = 1.71, 17.35])
- **Lower Fagerstrom score at sessions  $\geq 5$**

# Probability of Not Smoking at Month 9 Given Earlier Smoking vs. Non-Smoking Status (n = 140)



## Conclusions from Preliminary Work

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- It is feasible to incorporate guideline-based smoking cessation treatment into routine delivery of mental health care for PTSD
  - Integrating treatment of nicotine dependence is more effective than the usual standard of VA care within the VAPSHCS, for PTSD patients
  - IC was a better vehicle than USC for delivering cessation treatments of sufficient intensity, which may explain the superior results of IC
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## Implications and Future Directions

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- Conduct a multi-site clinical effectiveness trial of IC versus USC (CSP #519)
  - Determine whether IC is more cost-effective than USC
  - Identify models of collaborative care involving IC + USC (e.g., stepped-care or combined care)
  - Test whether IC can be successfully extended to general mental health clinics and patients with other psychiatric disorders
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